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Notice of Allowability	Application No.	Applicant(s)	
	10/826,141	KAMBLI ET AL.	
	Examiner	Art Unit	
	Sujoy K. Kundu	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>April 4, 2005</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Allowable Subject Matter

Claims 1-21 are allowed.

Pertinent Art Cited

The following patent the current state of the art:

Schlosser (US 2003/0125841 A1) teaches a method for diagnosing an increase in fluid consumption in a fluid power system including a fluid supply line operatively connected to a plurality of valves which are connected to a corresponding actuator by at least one branch of each actuator being selectively pressurized and exhausted by the corresponding valves, the method comprising the steps of:

defining a plurality of episodes wherein each episode corresponds to a time period ("cycle") when the at least one branch of one of the plurality of actuators is pressurized (Paragraph 39 & 43); and

calculating fluid consumption for each episode to obtain a change in fluid value, ΔFC , for at least one branch of each of the plurality of actuators (Paragraph 42)

However, Schlosser does not teach comparing the ΔFC values to a predetermined reference fluid consumption value for each of the at least one branch of each of the plurality of actuators during a system cycle to obtain a deviation value for the at least one branch of each of the plurality of actuators and comparing the actuator deviation values for each actuator to determine which of the plurality of actuators has the highest deviation.

Reason for Allowance

The following is an examiner's statement of reasons for allowance: Regarding Claim 1:

The primary reason for allowance of claims 1-8 is the inclusion of the limitations of comparing the ΔFC values to a predetermined reference fluid consumption value for each of the at least one branch of each of the plurality of actuators during a system cycle to obtain a deviation value for the at least one branch of each of the plurality of actuators and comparing the actuator deviation values for each actuator to determine which of the plurality of actuators has the highest deviation. It is this limitation as claimed in the combination that is not found, taught or suggested in the prior art of record that makes these claims allowable over the prior art.

The following is an examiner's statement of reasons for allowance: Regarding Claim 9:

The primary reason for allowance of claim 9 is the inclusion of the limitations of combining the flow signals with the signals used to change the state of the valves to calculate a change in air consumption value, ΔFC , for each valve change of state and identifying the one of the plurality of episodes with the greatest deviation. It is this limitation as claimed in the combination that is not found, taught or suggested in the prior art of record that makes these claims allowable over the prior art.

The following is an examiner's statement of reasons for allowance: Regarding Claim 10:

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The primary reason for allowance of claim 10-15 is the inclusion of the limitations of comparing the ΔFC values to a predetermined reference value for each of the branches of each of the plurality of actuators during a system cycle to obtain a deviation value for each of the first and second branches. It is this limitation as claimed in the combination that is not found, taught or suggested in the prior art of record that makes these claims allowable over the prior art.

The following is an examiner's statement of reasons for allowance: Regarding Claim 16:

The primary reason for allowance of claims 16 is the inclusion of the limitations of comparing the actual slope value to a predetermined reference slope value for each of the branches of each of the actuators during a system cycle and generating a deviation value for each of the branches. It is this limitation as claimed in the combination that is not found, taught or suggested in the prior art of record that makes these claims allowable over the prior art.

The following is an examiner's statement of reasons for allowance: Regarding Claim 17:

The primary reason for allowance of claims 17 is the inclusion of the limitations of comparing the ΔFC values to a predetermined reference fluid consumption value for each of the at least one branch of each of the plurality of actuators during a system cycle to obtain a deviation value for the at least one branch of each of the plurality of actuators and comparing the actuator deviation values for each actuator to determine which of the plurality of actuators has the highest deviation. It is this limitation as

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claimed in the combination that is not found, taught or suggested in the prior art of record that makes these claims allowable over the prior art.

The following is an examiner's statement of reasons for allowance: Regarding Claim 18:

The primary reason for allowance of claims 18-21 is the inclusion of the limitations of the monitoring device calculates the difference between the deviation value, and compares the actuator deviation of the first and second branches to obtain an actuator deviation value, and compares the actuator deviation values for each actuator to determine which if the plurality of actuators has the highest deviation value. It is this limitation as claimed in the combination that is not found, taught or suggested in the prior art of record that makes these claims allowable over the prior art.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujoy K. Kundu whose telephone number is 571-272-8586. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKK
11/17/2005


J. Banerjee
Supervisory Patent Examiner
Art Unit 2863